NORTH CAROLINA DIVISION OF AIR QUALITY

Air Permit Review

Region: Mooresville Regional Office
County: Catawba
NC Facility ID: 1800206
Inspector's Name: Bruce Ingle
Date of Last Inspection: 04/28/2006
Compliance Code: 4/In Compliance - Certification

Facility Data

Applicant (Facility's Name): Shurtape Technologies - Hickory/Highland Plt

Facility Address:
Shurtape Technologies - Hickory/Highland Plt
1620 Highland Avenue and 17th Street NE
Hickory, NC 28603

SIC: 2672 / Paper Coated And Laminated, Nec
NAICS: 322222 / Coated and Laminated Paper Manufacturing

Facility Classification: Before: Title V **After:** Title V
Fee Classification: Before: Title V **After:** Title V

Permit Applicability (this application only)

SIP:
NSPS:
NESHAP: MACT JJJJ and EEEE
PSD:
PSD Avoidance: Reestablish 1,160 tons limit
NC Toxics:
112(r):
Other: CAM

Contact Data

Facility Contact	Authorized Contact	Technical Contact
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Application Data

Application Number: 1800206.06A
Date Received: 07/25/2006
Application Type: Modification
Application Schedule: TV-Significant

Existing Permit Data
Existing Permit Number: 02218/T24
Existing Permit Issue Date: 07/25/2005
Existing Permit Expiration Date: 10/31/2008

Review Engineer: Rahul Thaker

Review Engineer's Signature: **Date:** August 27, 2007

Comments / Recommendations:
Issue 02218/T25
Permit Issue Date:
Permit Expiration Date:

1. Purpose of Application

Shurtape Technologies - Hickory/Highland Plant facility is requesting to modify the existing permit for the following:

- to include applicable requirements under MACT Subparts JJJJ and EEEE for existing affected sources as below:

  Hickory Plant Coating Lines (ES-33-04-01, ES-33-04-02, ES-33-5-01, ES-33-5-02, ES-33-5-03, ES-33-5-FP, ES-33-6-01, ES-33-6-02, ES-33-6-03, ES-33-6-04, ES-33-07-01, ES-33-07-02, ES-33-8-02, ES-33-8-04, ES-33-8-05, ES-33-09-01, ES-33-09-02, ES-33-15-01, ES-33-PC-2) and associated Carbon Adsorption Systems (CD-33-35-10, CD-33-6-10, CD-33-8-10, and CD-33-8-12) and Regenerative Thermal Oxidizer (CD-33-56-RTO)

  Highland Plant Coating Line (ES-36-CL-1, ES-36-CL-2, ES-36-CL-3, ES-36-DO-1, ES-36-DO-2, ES-36-DO-3, ES-36-CL-7, ES-36-CL-8, and ES-36-CL10) and associated Regenerative Thermal Oxidizer (CD-36-RTO-1)

  Two Toluene Storage Tanks (ES-33-2-45 and ES-33-2-46), Two Petroleum-Based Adhesive Liquid Storage Tanks (ES-33ST-1 and ES-33ST-2), One Mixing Tank (ES-33-MT-21), Eleven Solvent-Based Adhesive Mixers (ES-33-1-01 through ES-33-1-07 and ES-33-1-10 through ES-33-1-13), One Solvent-Based Mixer (ES-33-1-16),

Two Adhesive Storage Tanks (ES-33-2-20 and ES-33-2-23), Seven Adhesive Storage Tanks (ES-33-2-27 through ES-33-2-33), One Solvent Storage Tank (ES-33-2-25), Seven Adhesive Storage Tanks (ES-33-2-19 and ES-33-2-34 through ES-33-2-39), Two Adhesive Storage Tanks (ES-33-2-41 and ES-33-2-42), Two Solvent Based Resin Storage Tanks (ES-33-2-47 and ES-33-2-48), Three Solvent Based Coating Storage Tanks (ES-33-52, ES-33-53, and ES-33-54), Eight Mixing Tanks (33-SPC-MT1-8), One Bulk Resin System including Mixing Tank (33-RS), Three Toluene Transfer Racks (33-TST-TR1, 33-TST-TR2, and 33-TST-TR3), Two Solvent Based Resin Transfer Racks (33-SBPRT-TR1 and 33-SBPRT-TR2), and Two Petroleum Resin Transfer Racks (33-PRT-TR1 and 33-PRT-TR2).

- to repermit the following permitted sources and control devices, as per the 2nd step of 2Q .0501(c)(2):

  Line 5 Adhesive Drying Oven (ID No. ES-33-5-01), Oven Dry Entry Hood (ID No. 33-5-02) and Coating Application Station (ID No. 33-5-03), and associated Carbon Adsorption System (ID No. 33-35-10) and Regenerative Thermal Oxidizer (ID No. 33-56-RTO), Coating Line 5 Flexographic Printer (ID No. 33-5-FP), Line 6 Adhesive Drying Oven (ID No. ES-33-6-01) and Coating Application Station (ID No. 33-6-02), and associated Carbon Adsorption System (ID No. 33-35-10) and Regenerative Thermal Oxidizer (ID No. 33-56-RTO), Bulk Resin System (ID No. 33-RS), and Eight Mixing Tanks (ID Nos. 33-SPC-MT1-8).

- to allow use of RTO (ID No. CD-36-RTO-1) as optional control device instead of mandatory control device for controlling VOC emissions from Highland Plant Tanks (ID Nos. ES-36-IT, ES-36-WBST-1 through ES-36-WBST3, ES-36-POST-1, and ES-36-MRT-1) and Highland Plant Coating Line (ID Nos. ES-36-CL-1, ES-36-CL-2, ES-36-CL-3, ES-36-DO-1, ES-36-DO-2, and ES-36-DO-3).

- to change the compliance method under the existing PSD avoidance condition for less than 1,160 tons/yr VOC emissions for

  Hickory Plant Adhesive Storage Tanks and Groundwater Remediation (ES-33-1-01 through ES-33-1-07, ES-33-1-10 through ES-33-1-13, ES-33-1-16, ES-33-2-20, ES-33-2-23, ES-33-2-27 through ES-33-2-33, ES-33-2-25, ES-33-2-19, ES-33-2-34 through ES-33-2-39, ES-33-2-41 and ES-33-2-42, ES-33-GR), Hickory Plant Raw Material Storage (ES-33-2-47, ES-33-2-48, ES-33-2-43, ES-33-2-44, ES-33-2-45, ES-33-2-46), Hickory Plant Coating Lines (ES-33-3-01, ES-33-3-02, ES-33-3-03, ES-33-5-01, ES-33-5-02, ES-33-5-03, ES-33-6-01, ES-33-6-02, ES-33-6-03, ES-33-6-04, ES-33-8-02, ES-33-8-04, ES-33-8-05), Hickory Plant Coating Line 5 Flexographic Printer (ID No. 33-5-FP), Bulk Resin System (ID No. 33-RS), Eight Mixing Tanks (ID Nos. 33-SPC-MT1-8), and associated Carbon Adsorption Systems (ID Nos. CD-33-35-10, CD-33-6-10, CD-33-8-10, and CD-33-8-12) and Regenerative Thermal Oxidizer (ID No. CD-33-56-RTO),

  and to reestablish this PSD avoidance permit limit.

- to remove Hickory Plant Coating Line 1, Line 2, and Line 3 emission sources (ID Nos. ES-33-01-01, ES-33-01-02, ES-33-02-01, ES-33- 02-02, and ES-33-3-01 and ES-33-3-03).

- to repermit Groundwater Remediation System (ID No. ES-33-GR) as an uncontrolled emission source.

- to repermit Pilot Coater No. 1 (ID No. ES-33-0-01) as an uncontrolled emission source.

- to repermit Hickory Plant Adhesive Storage Tanks (ID Nos. ES-33-1-01 through ES-33-1-07, ES-33-1-10 through ES-33-1-13, ES-33-1-16, ES-33-2-20, ES-33-2-23, ES-33-2-27 through ES-33-2-33, ES-33-2-25, ES-33-2-19, ES-33-2-34 through ES-33-2-39, ES-33-2-41 and ES-33-2-42) for VOC controlling emissions via No. 2 Triple Bed carbon adsorption system (ID No. 33-6-10) as an option.

- to remove NSPS applicability for process oil tank (ID No. ES36-POST-1).

- to add three storage tanks for storing solvent-based coatings (ID Nos. ES-33-52, ES-33-53 and ES-33-54).

- to add a parts washer in the maintenance department (ID No. IS-F-PW1).

- to list permitted boilers (ID Nos. ES-33-BLR-B3 and ES-33-BLR-B4) as insignificant activities.

- to permit a temporary boiler (ID No. 33-BLR-Temp).

- to revise source descriptors for all permitted storage tanks to include wordings "storage tank with a maximum capacity up to".

The application contains processing fee of $834, consistency determination, source reduction form, and signature of responsible official. It has been deemed complete as of July 28, 2006.

DAQ will process this permit application as per the procedures in 15A NCAC 2Q .0501(c)(1).

2. Facility Description

The company operates a pressure sensitive tape manufacturing facility in Hickory, North Carolina. It operates two plants - Highland Plant (Plant 36) and Hickory Plant (Plant 33). Both plants are under common ownership, located on contiguous and adjacent property, and have two digit SIC code. Therefore, they have been deemed as one source under Part 70 regulations and hence, one Title V permit has been issued for this source.

3. Statement of Compliance

The applicant has certified through a submittal of E5 form that the facility is in compliance with all applicable requirements.

Separately, DAQ (Bruce Ingle of MRO) compliance inspection report for the 5/4/07 inspection indicates that the facility is appearing to be in compliance with the applicable air quality regulations.

4. Permit History

- The initial Title V permit 02218T23 was issued on November 25, 2003.

- Air permit 02218T24 was issued on July 25, 2005 as per 1st step of 15A NCAC 2Q .0501(c)(2) [i.e., using 2Q .0300 procedures].

  This permit allowed the construction and operation of Line 5 Adhesive Drying Oven (ID No. ES-33-5-01), Oven Dry Entry Hood (ID No. 33-5-02) and Coating Application Station (ID No. 33-5-03), and associated Carbon Adsorption System (ID No. 33-35-10) and Regenerative Thermal Oxidizer (ID No. 33-56-RTO), Coating Line 5 Flexographic Printer (ID No. 33-5-FP), Line 6 Adhesive Drying Oven (ID No. ES-33-6-01) and Coating Application Station (ID No. 33-6-02), and associated Carbon Adsorption System (ID No. 33-35-10) and Regenerative Thermal Oxidizer (ID No. 33-56-RTO), Bulk Resin System (ID No. 33-RS), and Eight Mixing Tanks (ID Nos. 33-SPC-MT1-8).

5. Permit Modifications/Changes

A. To include applicable requirements under MACT Subparts JJJJ and EEEE for existing affected sources as below:

Hickory Plant Coating Lines (ES-33-04-01, ES-33-04-02, ES-33-5-01, ES-33-5-02, ES-33-5-03, ES-33-5-FP, ES-33-6-01, ES-33-6-02, ES-33-6-03, ES-33-6-04, ES-33-07-01, ES-33-07-02, ES-33-8-02, ES-33-8-04, ES-33-8-05, ES-33-09-01, ES-33-09-02, ES-33-15-01, ES-33-PC-2) and associated Carbon Adsorption Systems (CD-33-35-10, CD-33-6-10, CD-33-8-10, and CD-33-8-12) and Regenerative Thermal Oxidizer (CD-33-56-RTO).

Highland Plant Coating Line (ES-36-CL-1, ES-36-CL-2, ES-36-CL-3, ES-36-DO-1, ES-36-DO-2, ES-36-DO-3, ES-36-CL-7, ES-36-CL-8, and ES-36-CL10) and associated Regenerative Thermal Oxidizer (CD-36-RTO-1).

Two Toluene Storage Tanks (ES-33-2-45 and ES-33-2-46), Two Petroleum-Based Adhesive Liquid Storage Tanks (ES-33ST-1 and ES-33ST-2), One Mixing Tank (ES-33-MT-21), Eleven Solvent-Based Adhesive Mixers (ES-33-1-01 through ES-33-1-07 and ES-33-1-10 through ES-33-1-13), One Solvent-Based Mixer (ES-33-1-16), Two Adhesive Storage Tanks (ES-33-2-20 and ES-33-2-23), Seven Adhesive Storage Tanks (ES-33-2-27 through ES-33-2-33), One Solvent Storage Tank (ES-33-2-25), Seven Adhesive Storage Tanks (ES-33-2-19 and ES-33-2-34 through ES-33-2-39), Two Adhesive Storage Tanks (ES-33-2-41 and ES-33-2-42), Two Solvent Based Resin Storage Tanks (ES-33-2-47 and ES-33-2-48), Three Solvent Based Coating Storage Tanks (ES-33-52, ES-33-53, and ES-33-54), Eight Mixing Tanks (33-SPC-MT1-8), One Bulk Resin System including Mixing Tank (33-RS), Three Toluene Transfer Racks (33-TST-TR1, 33-TST-TR2, and 33-TST-TR3), Two Solvent Based Resin Transfer Racks (33-SBPRT-TR1 and 33-SBPRT-TR2), and Two Petroleum Resin Transfer Racks (33-PRT-TR1 and 33-PRT-TR2).

The MACT standard in 40 CFR 63 Subpart JJJJ "National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating" applies to major existing and new sources of HAP, at paper and other web coating operations.

This facility is a major source of HAP and it has coating lines, which are engaged in coating of fabric substrates for use in pressure sensitive tapes.

These existing coating lines consist of coating line No. 4 emission sources (ES-33-4-01 and ES-33-4-02), coating line No. 5 emission sources (ES-33-5-01, 33-5-02, 33-5-03 and ES-33-5-FP), coating line No. 6 emission sources (ES-33-6-01, ES-33-6-02, ES-33-6-03, and ES-33-6-04), coating line No. 7 emission sources (ES-33-7-01 and ES-33-7-02), coating line No. 8 emission sources (ES-33-8-02, ES-33-8-4, and ES-33-8-5), coating line No. 9 emission sources (ES-33-9-01 and ES-33-9-02), and Highland Plant coating line emission sources (ES-36-CL1, ES-36-CL2, ES-36-CL3, ES-36-DO-1, ES-36-DO-2, and ES-36-DO-3). The compliance with the MACT is required by December 5, 2005.

The Permittee has provided demonstration, showing compliance with the MACT JJJJ requirements.

It should be noted that "affiliated operations" as defined in the preamble to the MACT JJJJ (67 FR 72332, 12/4/02) are not part of the "affected source" under this MACT.

The "affiliated operations" at this facility are two toluene storage tanks (ES-33-2-45 and ES-33-2-46), two petroleum-based adhesive liquid storage tanks (ES-33ST-1 and ES-33ST-2), one mixing tank (ES-33-MT-21), eleven solvent-based adhesive mixers (ES-33-1-01 through ES-33-1-07 and ES-33-1-10 through ES-33-1-13), one solvent based mixer (ES-33-1-16), two adhesive storage tanks (ES-33-2-20 and ES-33-2-23), seven adhesive storage tanks (ES-33-2-27 through ES-33-2-33), one solvent storage tank (ES-33-2-25), seven adhesive storage tanks (ES-33-2-19 and ES-33-2-34 through ES-33-2-39), two adhesive storage tanks (ES-33-2-41 and ES-33-2-42), two solvent based resin storage tanks (ES-33-2-47 and ES-33-2-48), three solvent based coating storage tanks (ES-33-52, ES-33-53, and ES-33-54), eight mixing tanks (33-SPC-MT1-8), one bulk resin system including mixing tank (33-RS), three toluene transfer racks (33-TST-TR1, 33-TST-TR2, and 33-TST-TR3), two solvent based resin transfer racks (33-SBPRT-TR1 and 33-SBPRT-TR2), and two petroleum resin transfer racks (33-PRT-TR1 and 33-PRT-TR2).

However, the above "affiliated operations" are part of "affected source" under MACT Subpart EEEE "National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)." See EPA e-mail (Raymond Gregory to Rahul Thaker dated 7/26/07)

The following are regulatory reviews for applicable requirements in MACT Subparts JJJJ and EEEE.

MACT Subpart JJJJ

Emission Standards

- For coating line No. 4 emission sources (ES-33-4-01 and ES-33-4-02), coating line No. 5 emission sources (ES-33-5-01, 33-5-02, 33-5-03 and ES-33-5-FP), coating line No. 6 emission sources (ES-33-6-01, ES-33-6-02, ES-33-6-03, and ES-33-6-04), coating line No. 7 emission sources (ES-33-7-01 and ES-33-7-02), coating line No. 8 emission sources (ES-33-8-02, ES-33-8-4, and ES-33-8-5), coating line No. 9 emission sources (ES-33-9-01 and ES-33-9-02), and Highland Plant coating line emission sources (ES-36-CL1, ES-36-CL2, ES-36-CL3, ES-36-DO-1, ES-36-DO-2, and ES-36-DO-3), the Permittee has chosen the option of limiting organic HAP emissions to no more than 20 percent of the mass of coating solids applied for each month [§63.3320(b)(3)].

- For coating line No. 5 emission sources (ES-33-5-01, 33-5-02, and 33-5-03), coating line No. 6 emission sources (ES-33-6-01 and ES-33-6-02), and Highland Plant coating line emission sources (ES-36-CL1, ES-36-CL2, ES-36-CL3, ES-36-DO-1, ES-36-DO-2, and ES-36-DO-3), for which the Permittee uses thermal oxidizers (33-56-RTO and 36-RTO-1), the Permittee shall meet the operating limits specified in Table 1 to this Subpart. These operating limits apply to emission capture systems and control devices, and the Permittee shall establish the operating limits during the performance test according to the requirements in §63.3360(e)(3). The Permittee shall meet the operating limits at all times after the Permittee establishes them [§63.3321(a)].

TABLE 1 TO SUBPART JJJJ OF PART 63.—OPERATING LIMITS IF USING ADD-ON CONTROL DEVICES AND CAPTURE SYSTEM

For the following device:	You must meet the following operating limit:	And you must demonstrate continuous compliance with operating limits by:
1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.3360(e)(3)(i).	i. Collecting the combustion temperature data according to §63.3350(e)(9); ii. Reducing the data to 3-hour block averages; and iii. Maintain the 3-hour average combustion temperature at or above the temperature limit.

Performance Test

- The Permittee is not required to conduct performance test on solvent recovery devices (33-35-10, 33-6-10, 33-8-10, and 33-8-12) [§63.3360(b)(3)].

- The Permittee shall conduct a performance test to establish the destruction or removal efficiency of the thermal oxidizers (33-56-RTO and 36-RTO-1) according to the methods and procedures in §63.3360(e). Details of the emissions testing and requirements can be found in Section 3 - General Condition JJ. Testing shall be completed and the results submitted within 180 days from December 5, 2005, unless an alternate date is approved by the DAQ. If the Permittee does not establish the destruction or removal efficiency of the RTO (33-56-RTO and 36-RTO-1), the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 [§63.3360(e)].

- During the performance test on RTO (33-56-RTO and 36-RTO-1), the Permittee shall monitor and record the combustion temperature once every 15 minutes during each run of the three stack test runs. The Permittee shall use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for the Permittee's thermal oxidizer (33-56-RTO and 36-RTO-1). If the Permittee does not establish the average combustion temperature as a minimum operating limit for the thermal oxidizers (33-56-RTO and 36-RTO-1) through the data collected during the performance test, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 [§63.3321 and §63.3360(e)(3)].

- If the Permittee demonstrates compliance by meeting the requirements of § 63.3370(e), (f), (g), (h), (i)(2), (k), (n)(2) or (3), or (p), the Permittee shall determine capture efficiency using the procedures in paragraph (f)(1), (2), or (3) of §63.3360, as applicable.

Monitoring

- If the Permittee is owning or operating web coating lines with intermittently controlled work stations, the Permittee shall monitor bypasses of the control device and the mass of each coating material applied at the work station during any such bypass. If using a control device for complying with the requirements of this Subpart, the Permittee shall demonstrate that any coating material applied on a never controlled work station or an intermittently-controlled work station operated in bypass mode is allowed in his/her compliance demonstration according to § 63.3370(n) and (o). The bypass monitoring shall be conducted using at least one of the procedures in §63.3350(c). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111, if the above requirements are not complied with [§63.3350(c)].

- For coating line No. 4 emission sources (ES-33-4-01 and ES-33-4-02), coating line No. 5 emission sources (ES-33-5-01, 33-5-02, 33-5-03 and ES-33-5-FP), coating line No. 6 emission sources (ES-33-6-01, ES-33-6-02, ES-33-6-03, and ES-33-6-04), coating line No. 7 emission sources (ES-33-7-01 and ES-33-7-02), coating line No. 8 emission sources (ES-33-8-02, ES-33-8-4, and ES-33-8-5), coating line No. 9 emission sources (ES-33-9-01 and ES-33-9-02), and Highland Plant coating line emission sources (ES-36-CL1, ES-36-CL2, ES-36-CL3, ES-36-DO-1, ES-36-DO-2, and ES-36-DO-3), the Permittee has chosen to meet the requirements of liquid-liquid material balance in §63.3350(d)(2) to comply with emission standard in §63.3320(b)(3). The Permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device that indicates the cumulative amount of volatile matter recovered by the solvent recovery device on a monthly basis. The device shall be certified by the manufacturer to be accurate within ±2.0 percent by mass. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if a monitoring device is not installed, calibrated, maintained, and operated for determining cumulative amount of volatile matter recovered by the solvent recovery device over a monthly basis [§63.3350(d)].

- For coating line No. 5 emission sources (ES-33-5-01, 33-5-02, 33-5-03 and ES-33-5-FP), coating line No. 6 emission sources (ES-33-6-01 and ES-33-6-02), and Highland Plant coating line emission sources (ES-36-CL1, ES-36-CL2, ES-36-CL3, ES-36-DO-1, ES-36-DO-2, and ES-36-DO-3), the Permittee may use thermal oxidizers (33-56-RTO and 36-RTO-1) to comply with emission standard in §63.3320(b)(3).

  For thermal oxidizers (33-56-RTO and 36-RTO-1), the Permittee shall install, calibrate, maintain, and operate temperature monitoring equipment according to the manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator shall be verified every 3 months or the chart recorder, data logger, or temperature indicator shall be replaced. The Permittee shall replace the equipment whether he/she chooses not to perform the calibration or the equipment cannot be calibrated properly. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111, if the above requirements are not complied with.

  For thermal oxidizers (33-56-RTO and 36-RTO-1), the Permittee shall install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ± 1 percent of the temperature being monitored in degrees Celsius, or ± 1 ^{0}Celsius, whichever is greater. The thermocouple or temperature sensor shall be installed in the combustion chamber at a location in the combustion zone. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111, if the above requirements are not complied with.

  [§63.3350(e)]

- If the Permittee is complying with the emission standards in §63.3320 through the use of a capture system and control device for one or more web coating lines, the Permittee shall develop a site-specific monitoring plan containing the information specified in paragraphs (f)(1) and (2) of §63.3350 for these capture systems. The Permittee shall monitor the capture system in accordance with paragraph (f)(3) of §63.3350. The Permittee shall make the monitoring plan available for inspection by the permitting authority upon request.

- *The solvent recovery devices* (33-35-10, 33-6-10, 33-8-10, and 33-8-12) have one or more never-controlled or intermittently-controlled workstations. Therefore, the Pemittee shall determine organic HAP emissions for coating line No. 5 emission sources (ES-33-5-01, 33-5-02, 33-5-03 and ES-33-5-FP), coating line No. 6 emission sources (ES-33-6-01, ES-33-6-02, ES-33-6-03, and ES-33-6-04), and coating line No. 8 emission sources (ES-33-8-02, ES-33-8-4, and ES-33-8-5) by performing a monthly *liquid-liquid material balance for solvent recovery devices* (33-35-10, 33-6-10, 33-8-10, and 33-8-12), in accordance with the paragraphs (i)(1)(ii) through (vii) and (o) of §63.3370.

  i. If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as-applied during the month following the procedure in §63.3360(c) [§63.3370(i)(1)(ii)].
  ii. Determine the volatile organic content of each coating material as-applied during the month following the procedure in §63.3360(d) [§63.3370(i)(1)(iii)].
  iii. If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, determine the coating solids content of each coating material applied during the month following the procedure in § 63.3360(d) [§63.3370(i)(1)(iv)].
  iv. Determine and monitor the amount of volatile organic matter recovered for the month according to the procedures in §63.3350(d) [§63.3370(i)(1)(v)].
  v. *Recovery efficiency.* Calculate the volatile organic matter collection and recovery efficiency using Equation 7 in §63.3370: [§63.3370(i)(1)(vi)]

$$R_v = \frac{M_{vr} + M_{vret}}{\sum_{i=1}^{p} C_{vi} M_i + \sum_{i=1}^{q} C_{vij} M_{ij}} \times 100 \quad \text{Eq. 7}$$

  Where:
  R_v = Organic volatile matter collection and recovery efficiency, percent.
  M_{vr} = Mass of volatile matter recovered in a month, kg.
  M_{vret} = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where the Permittee choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.
  p = Number of different coating materials applied in a month.
  C_{vi} = Volatile organic content of coating material, i, expressed as a mass fraction, kg/kg.
  M_i = Mass of as-purchased coating material, i, applied in a month, kg.
  q = Number of different materials added to the coating material.
  C_{vij} = Volatile organic content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.
  M_{ij} = Mass of material, j, added to as-purchased coating material, i, in a month, kg.

  vi. *Organic HAP emitted.* Calculate the organic HAP emitted during the month using Equation 8 of this section:

$$H_e = \left[1 - \frac{R_v}{100}\right]\left[\sum_{i=1}^{p} C_{hi} M_i + \sum_{j=1}^{q} C_{hij} M_{ij} - M_{vret}\right] \quad \text{Eq. 8}$$

Where:
He = Total monthly organic HAP emitted, kg.
Rv = Organic volatile matter collection and recovery efficiency, percent.
p = Number of different coating materials applied in a month.
Chi = Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.
Mi = Mass of as-purchased coating material, i, applied in a month, kg.
q = Number of different materials added to the coating material.
Chij = Organic HAP content of material, j, added to as-purchased coating material, i,e expressed as a mass fraction, kg/kg.
Mij = Mass of material, j, added to as purchased coating material, i, in a month, kg.
Mvret = Mass of volatile matter retained in the coated web after curing or drying, or

vii. *Never-controlled work stations*. The Permittee shall determine mass of all coating materials as-applied on never-controlled work station (ID No. 33-5-FP) during the month [§63.3370(o)(1)].

viii. Determine the sum of the mass of all coating materials as-applied on intermittently-controlled work stations operating in a controlled mode and the mass of all coating materials applied on always-controlled work stations during the month [§63.3370(o)(2)].

ix. *Liquid liquid material balance compliance demonstration.* For each web coating line or group of web coating lines for which the Permittee uses the provisions of paragraph (n)(1)(ii) of this section, the Permittee shall calculate the organic HAP emitted during the month using Equation 14 in §63.3370 [§63.3370(o)(3)];

$$He = \left[\sum M_{ci} C_{ahi}\right]\left[1 - \frac{Rv}{100}\right] + \left[\sum M_{Bi} C_{ah\,i}\right] - Mvret \qquad \text{Eq. 14}$$

Where:
H_e = Total monthly organic HAP emitted, kg.
p = Number of different coating materials applied in a month.
M_{ci} = Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in controlled mode and the mass of coating material, i, as-applied on always controlled work stations in a month, kg.
C_{ahi} = Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.
R_v = Organic volatile matter collection and recovery efficiency, percent.
M_{Bi} = Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in by-pass mode and the mass of coating materials, i, as-applied on never-controlled work stations, in a month, kg.
C_{ahi} = Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.
M_{vret} = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where the Permittee choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

[§63.3370(n)(1)(ii)]

- The Permittee shall determine the organic HAP emissions for coating line No. 5 emission sources (ES-33-5-01, 33-5-02, and 33-5-03), coating line No. 6 emission sources (ES-33-6-01 and ES-33-6-02), and Highland Plant coating line emission sources (ES-36-CL1, ES-36-CL2, ES-36-CL3, ES-36-DO-1, ES-36-DO-2, and ES-36-DO-3) when controlled by *thermal oxidizers* (33-56-RTO and 36-RTO-1), in accordance with the procedures in paragraph (k)(1)(i) through (vi) of §63.3370.
  i. Determine the oxidizer destruction efficiency using the procedure in § 63.3360(e).
  ii. Determine the capture system capture efficiency in accordance with § 63.3360(f).

iii. *Capture and control efficiency monitoring.* Whenever a web coating line is operated, continuously monitor the operating parameters established in accordance with § 63.3350(e) and (f) to ensure capture and control efficiency.
iv. If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating materials applied, or emission of less than the calculated allowable organic HAP, determine the mass of each coating material applied on the web coating line or group of web coating lines controlled by a common oxidizer during the month.
v. If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as applied during the month following the procedure in §63.3360(c).
vi. If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, determine the coating solids content of each coating material applied during the month following the procedure in §63.3360(d).

[§63.3370(n)(3)(iii)(A)]

As an alternative to the compliance procedure in §63.3370(n)(3)(iii)(A) as discussed above for coating line No. 5 emission sources (ES-33-5-01, 33-5-02, and 33-5-03), coating line No. 6 emission sources (ES-33-6-01 and ES-33-6-02), and Highland Plant coating line emission sources (ES-36-CL1, ES-36-CL2, ES-36-CL3, ES-36-DO-1, ES-36-DO-2, and ES-36-DO-3) when controlled by *thermal oxidizers* (33-56-RTO and 36-RTO-1), the Permittee is allowed to use the compliance procedure in §63.3370(n)(4) [see below] to determine organic HAP emissions from coating line No. 5 emission sources (ES-33-5-01, 33-5-02, and 33-5-03), coating line No. 6 emission sources (ES-33-6-01 and ES-33-6-02), and Highland Plant coating line emission sources (ES-36-CL1, ES-36-CL2, ES-36-CL3, ES-36-DO-1, ES-36-DO-2, and ES-36-DO-3).

- The Permittee shall determine organic HAP applied to *uncontrolled coating lines*, i.e., coating line No. 4 emission sources (ES-33-4-01 and ES-33-4-02), coating line No. 7 emission sources (ES-33-7-01 and ES-33-7-02), and coating line No. 9 emission sources (ES-33-9-01 and ES-33-9-02) using the Equation 6 of §63.3370. The organic HAP emitted from an uncontrolled web coating line is equal to the organic HAP applied on that web coating line.

  Moreover, the Permittee can determine organic HAP applied to coating line No. 5 emission sources (ES-33-5-01, 33-5-02, and 33-5-03), coating line No. 6 emission sources (ES-33-6-01 and ES-33-6-02), and Highland Plant coating line emission sources (ES-36-CL1, ES-36-CL2, ES-36-CL3, ES-36-DO-1, ES-36-DO-2, and ES-36-DO-3), using the Equation 6 of §63.3370. The organic HAP emitted from an uncontrolled web coating line is equal to the organic HAP applied on that web coating line.

$$H_m = \sum_{i=1}^{p} C_{hi} M_i + \sum_{j=1}^{q} C_{hij} M_{ij} - M_{vret} \qquad \text{Eq. 6}$$

Where:
H_m = Total monthly organic HAP applied, kg.
p = Number of different coating materials applied in a month.
C_{hi} = Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.
M_i = Mass of as-purchased coating material, i, applied in a month, kg.
q = Number of different materials added to the coating material.
C_{hij} = Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.
M_{ij} = Mass of material, j, added to as purchased coating material, i, in a month, kg.
M_{vret} = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you

choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in § 63.3370.

[§63.3370(n)(4)]

- The Permittee shall convert the information obtained under paragraph (n)(1) through (4) of §63.3370 into the unit of the selected compliance options using the calculation procedures specified in paragraphs (n)(5)(i) through (iv) of §63.3370.
  i. *Organic HAP emitted.* Calculate the organic HAP emissions for the affected source for the month by summing all organic HAP emissions calculated according to paragraphs (n)(1), (2)(ii), 3(iii), and (4) of §63.3370.
  ii. *Coating solids applied.* If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as-applied during the month following the procedure in §63.3360(d).
  iii. *Organic HAP emission rate based on coating solids applied.* Calculate the organic HAP emission rate based on coating solids applied using Equation 9 in §63.3370:

$$L = \frac{H_e}{\sum_{i=1}^{p} C_{si} M_i + \sum_{j=1}^{q} C_{sij} M_{ij}} \qquad \text{Eq. 9}$$

Where:

L = Mass organic HAP emitted per mass of coating solids applied, kg/kg.
H_e = Total monthly organic HAP emitted, kg.
p = Number of different coating materials applied in a month.
C_{si} = Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.
M_i = Mass of as-purchased coating material, i, applied in a month, kg.
q = Number of different materials added to the coating material.
C_{sij} = Coating solids content of material, j, added to as-purchased coating material, i, expressed as a mass-fraction, kg/kg.
M_{ij} = Mass of material, j, added to as-purchased coating material, i, in a month, kg.

<u>Recordkeeping</u>

- For coating line No. 4 emission sources (ES-33-4-01 and ES-33-4-02), coating line No. 5 emission sources (ES-33-5-01, 33-5-02, 33-5-03 and ES-33-5-FP), coating line No. 6 emission sources (ES-33-6-01, ES-33-6-02, ES-33-6-03, and ES-33-6-04), coating line No. 7 emission sources (ES-33-7-01 and ES-33-7-02), coating line No. 8 emission sources (ES-33-8-02, ES-33-8-4, and ES-33-8-5), coating line No. 9 emission sources (ES-33-9-01 and ES-33-9-02), and Highland Plant coating line emission sources (ES-36-CL1, ES-36-CL2, ES-36-CL3, ES-36-DO-1, ES-36-DO-2, and ES-36-DO-3), the Permittee shall maintain the following records specified in §63.3410(a)(1) on a monthly basis in accordance with the requirements of §63.10(b)(1):
  i. Records specified in §63.10(b)(2) of all measurements needed to demonstrate compliance with this standard, including:
    (A) Control device and capture system operating parameter data in accordance with the reuirements of §63.3350(c), (e), and (f);
    (B) Organic HAP content data for the purpose of demonstrating compliance in accordance with the requirements of §63.3360(c);
    (C) Volatile matter and coating solids content data for the purpose of demonstrating compliance in accordance with the requirements of §63.3360(d);
    (D) Overall control efficiency determination using capture efficiency and control device destruction or removal efficiency test results in accordance with the requirements of §63.3360(e) and (f); and

(E) Material usage, organic HAP usage, volatile matter usage, and coating solids usage and compliance demonstrations using these data in accordance with the requirements of §63.3370(b), (c), and (d).

ii. Records specified in §63.10(c) for each CMS operated by the owner or operator in accordance with the requirements of §63.3350(b).

iii. The Permittee shall maintain records of all liquid-liquid material balances performed in accordance with the requirements of §63.3370. The records must be maintained in accordance with the requirements of §63.10(b).

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the above records are not maintained.
[§63.3410]

Reporting

- The Permittee shall submit a semiannual compliance report in accordance with the requirements in §63.3400(c).
  i. The Permittee shall submit a Notification of Performance Tests as specified in §§ 63.7 and 63.9(e), and in accordance with the requirements in §63.3400(d), if the Permittee is complying with the emission standard using a control device and the Permittee is required to conduct a performance test of the control device.
  ii. The Permittee shall submit a Notification of Compliance Status as specified in §63.9(h) and in accordance with §63.3400(e).
  iii. The Permittee shall submit a summary report of monitoring and record keeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

MACT Subpart EEEE

The emission sources, which are part of an affected source under this MACT and which have been identified above, are not required to comply with any control requirements (emission limitations, operating limits, or work practice standards) either due to size, vapor pressure of the organic liquid, or both. Refer to Table 2 to Subpart EEEE and §63.2346(a) through (e).

Hence, as per §63.2343, the Permittee is required to comply with only notification, record keeping and reporting requirements in this Section.

Record Keeping and Reporting

- For each storage tank subject to this Subpart having a capacity of less than 18.9 cubic meters (5,000 gallons) and for each transfer rack subject to this Subpart that only unloads organic liquids (i.e., no organic liquids are loaded at any of the transfer racks), the Permittee shall keep documentation that verifies that each storage tank and transfer rack identified in paragraph §63.2338(a) is not required to be controlled. The documentation shall be kept up-to-date (i.e., all such emission sources at a facility are identified in the documentation regardless of when the documentation was last compiled) and shall be in a form suitable and readily available for expeditious inspection and review according to §63.10(b)(1), including records stored in electronic form in a separate location. The documentation may consist of identification of the tanks and transfer racks identified in §63.2338(a) on a plant site plan or process and instrumentation diagram (P&ID). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these records are not kept.

  [§63.2343(a)]

- For each storage tank subject to this Subpart having a capacity of 18.9 cubic meters (5,000 gallons) or more that is not subject to control based on the criteria specified in Table 2 to this Subpart, items 1 through 6, the Permittee shall comply with the requirements specified in paragraphs (b)(1) through (3) of §63.2343.

i. The Permittee shall submit the information in §63.2386(c)(1), (2), (3), and (10)(i) in either the Notification of Compliance Status, according to the schedule specified in Table 12 to this Subpart, or in the first Compliance report, according to the schedule specified in §63.2386(b), whichever occurs first.
ii. If the Permittee submits the Compliance report before the Notification of Compliance Status, the Notification of Compliance Status shall contain the information specified in §63.2386(d)(3) and (4) if any of the changes identified in paragraph (d) of §63.2343 have occurred since the filing of the first Compliance report. If none of the changes identified in paragraph (d) of §63.2343 have occurred since the filing of the first Compliance report, the Permittee does not need to report the information specified in §63.2386(c)(10)(i) when the Permittee submits the Notification of Compliance Status.
iii. If the Permittee submits the Notification of Compliance Status before the first Compliance report, the first Compliance report shall contain the information specified in §63.2386(d)(3) and (4) if any of the changes specified in paragraph (d) of §63.2343 have occurred since the filing of the Notification of Compliance Status.
iv. If the Permittee has already submitted a Notification of Compliance Status or a first Compliance report under §63.2386(c), the Permittee does not need to submit a separate Notification of Compliance Status or first Compliance report for each storage tank that meets the conditions identified in paragraph (b) of §63.2343 (i.e., a single Notification of Compliance Status or first Compliance report should be submitted).
v. The Permittee shall submit a subsequent Compliance report according to the schedule in §63.2386(b) whenever any of the events in paragraph (d) of §63.2343 this section occur, as applicable.
    (A) The subsequent Compliance reports shall contain the information in §63.2386(c)(1), (2), (3) and, as applicable, in §63.2386(d)(3) and (4). If the Permittee is already submitting a subsequent Compliance report under §63.2386(d), the Permittee does not need to submit a separate subsequent Compliance report for each storage tank that meets the conditions identified in paragraph (b) of §63.2343 (i.e., a single subsequent Compliance report should be submitted).
vi. For each storage tank that meets the conditions identified in paragraph (b) of §63.2343, the Permittee shall keep documentation, including a record of the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid, that verifies the storage tank is not required to be controlled under this Subpart. The documentation shall be kept up-to-date and be in a form suitable and readily available for expeditious inspection and review according to §63.10(b)(1), including records stored in electronic form in a separate location. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these records are not kept.

[§63.2343(b)]

- For each transfer rack subject to this Subpart that loads organic liquids but is not subject to control based on the criteria specified in Table 2 to this Subpart, items 7 through 10, the Permittee shall comply with the requirements specified in paragraphs (c)(1) through (3) of §63.2343.
    i. The Permittee shall submit the information in §63.2386(c)(1), (2), (3), and (10)(i) in either the Notification of Compliance Status, according to the schedule specified in Table 12 to this Subpart, or a first Compliance report, according to the schedule specified in §63.2386(b), whichever occurs first.
    ii. If the Permittee submits the first Compliance report before the Notification of Compliance Status, the Notification of Compliance Status shall contain the information specified in §63.2386(d)(3) and (4) if any of the changes identified in paragraph (d) of §63.2343 have occurred since the filing of the first Compliance report. If none of the changes identified in paragraph (d) of §63.2343 have occurred since the filing of the first Compliance report, the Permittee does not need to report the information specified in §63.2386(c)(10)(i) when the Permittee submits the Notification of Compliance Status.
    iii. If the Permittee submits the Notification of Compliance Status before the first Compliance report, the first Compliance report shall contain the information specified in §63.2386(d)(3) and (4) if any of the changes specified in paragraph (d) of §63.2343 have occurred since the filing of the Notification of Compliance Status.
    iv. If the Permittee is already submitting a Notification of Compliance Status or a first Compliance report under §63.2386(c), the Permittee does not need to submit a separate Notification of Compliance Status or first Compliance report for each transfer rack that meets the conditions identified in paragraph (b) of

§63.2343 (i.e., a single Notification of Compliance Status or first Compliance report should be submitted).

v. The Permittee shall submit a subsequent Compliance report according to the schedule in §63.2386(b) whenever any of the events in paragraph (d) of §63.2343 occur, as applicable.

(A) The subsequent Compliance reports shall contain the information in §63.2386(c)(1), (2), (3) and, as applicable, in §63.2386(d)(3) and (4). If the Permittee is already submitting a subsequent Compliance report under §63.2386(d), the Permittee does not need to submit a separate subsequent Compliance report for each transfer rack that meets the conditions identified in paragraph (c) of §63.2343 (i.e., a single subsequent Compliance report should be submitted).

vi. For each transfer rack that meets the conditions identified in paragraph (c) of §63.2343, the Permittee shall keep documentation, including the records specified in §63.2390(d) that verifies the transfer rack is not required to be controlled under this Subpart. The documentation shall be kept up-to-date and be in a form suitable and readily available for expeditious inspection and review according to §63.10(b)(1), including records stored in electronic form in a separate location. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these records are not kept.

- If one or more of the events identified in paragraphs (d)(1) through (4) of §63.2343 occur since the filing of the Notification of Compliance Status or the last Compliance report, the Permittee shall submit a subsequent Compliance report as specified in paragraphs (b)(3) and (c)(3) of §63.2343.
  i. Any storage tank or transfer rack became subject to control under this Subpart EEEE; or
  ii. Any storage tank equal to or greater than 18.9 cubic meters (5,000 gallons) became part of the affected source but is not subject to any of the emission limitations, operating limits, or work practice standards of this Subpart; or
  iii. Any transfer rack (except those racks at which only unloading of organic liquids occurs) became part of the affected source; or
  iv. Any of the information required in §63.2386(c)(1), §63.2386(c)(2), or §63.2386(c)(3) has changed.

[§63.2343(d)]

B. To repermit the following permitted sources and control devices, as per the 2nd step of 2Q .0501(c)(2):

Line 5 Adhesive Drying Oven (ID No. ES-33-5-01), Oven Dry Entry Hood (ID No. 33-5-02) and Coating Application Station (ID No. 33-5-03), and associated Carbon Adsorption System (ID No. 33-35-10) and Regenerative Thermal Oxidizer (ID No. 33-56-RTO), Coating Line 5 Flexographic Printer (ID No. 33-5-FP), Line 6 Adhesive Drying Oven (ID No. ES-33-6-01) and Coating Application Station (ID No. 33-6-02), and associated Carbon Adsorption System (ID No. 33-35-10) and Regenerative Thermal Oxidizer (ID No. 33-56-RTO), Bulk Resin System (ID No. 33-RS), and Eight Mixing Tanks (ID Nos. 33-SPC-MT1-8).

These sources were permitted through the issuance of 02218T14 air permit on 7/25/05 as a first step of 2Q .0501(c)(2). These sources were reviewed with respect to their emissions and regulatory requirements. Refer to air permit 02218T14.

C. To allow use of RTO (ID No. CD-36-RTO-1) as optional control device instead of mandatory control device for controlling VOC emissions from Highland Plant Tanks (ID Nos. ES-36-IT, ES-36-WBST-1 through ES-36-WBST3, ES-36-POST-1, and ES-36-MRT-1) and Highland Plant Coating Line (ID Nos. ES-36-CL-1, ES-36-CL-2, ES-36-CL-3, ES-36-DO-1, ES-36-DO-2, and ES-36-DO-3).

The Permittee has provided estimates of before control potential emissions based on 12 consecutive months time period from 2005-2007. It indicates that the before control potential emissions are well below the permit limit of less than 40 tons per year for VOC emissions. DAQ agrees with the Permittee that the continuous operation of RTO for controlling VOC emissions from these sources may not be needed to assure compliance with this permit limit. Thus, DAQ will approve the company request of using this control device on a as-needed basis. The permit condition will be revised as follows:

The Permittee is allowed to operate the RTO as needed to comply with the emission limit. If the Permittee chooses to operate the RTO, the following requirements apply: The Permittee shall apply a control efficiency of 90 percent for VOC for the RTO (CD-36-RTO-1) if all 3-hour periods of the month during which the average temperature of the RTO is greater or equal to the average temperature of the RTO during the most recent performance test in NSPS Subpart RR. The Permittee shall apply a control efficiency of 0 percent for VOC for the RTO (CD-36-RTO-1) if any 3-hour period of the month during which the average temperature of the RTO is less than the average temperature of the RTO during the most recent performance tests in NSPS Subpart RR.

D. To change the compliance method under the existing PSD avoidance condition for less than 1,160 tons/yr VOC emissions for

Hickory Plant Adhesive Storage Tanks and Groundwater Remediation (ES-33-1-01 through ES-33-1-07, ES-33-1-10 through ES-33-1-13, ES-33-1-16, ES-33-2-20, ES-33-2-23, ES-33-2-27 through ES-33-2-33, ES-33-2-25, ES-33-2-19, ES-33-2-34 through ES-33-2-39, ES-33-2-41 and ES-33-2-42, ES-33-GR), Hickory Plant Raw Material Storage (ES-33-2-47, ES-33-2-48, ES-33-2-43, ES-33-2-44, ES-33-2-45, ES-33-2-46), Hickory Plant Coating Lines (ES-33-3-01, ES-33-3-02, ES-33-3-03, ES-33-5-01, ES-33-5-02, ES-33-5-03, ES-33-6-01, ES-33-6-02, ES-33-6-03, ES-33-6-04, ES-33-8-02, ES-33-8-04, ES-33-8-05), Hickory Plant Coating Line 5 Flexographic Printer (ID No. 33-5-FP), Bulk Resin System (ID No. 33-RS), Eight Mixing Tanks (ID Nos. 33-SPC-MT1-8), and associated Carbon Adsorption Systems (ID Nos. CD-33-35-10, CD-33-6-10, CD-33-8-10, and CD-33-8-12) and Regenerative Thermal Oxidizer (ID No. CD-33-56-RTO),

and to reestablish this PSD avoidance permit limit.

The VOC emissions from these sources are limited to 1,160 tons per year permit limit. Refer to Section 2.2 C.1. in the current permit. This condition requires that the facility calculate VOC emissions using a mass balance approach which measures the amount of toluene utilized (totalizing flow meters) from the toluene storage tanks, estimated change in mixing room inventory, and the amount recovered from the solvent recovery and returned to the storage tanks on a monthly basis.

The Permittee contends that above existing methodology is prone to error and can lead to non-compliance with the permit limit. The Permittee wants to use purchase and inventory records for all coatings for the revised methodology to be used for demonstrating compliance. The Permittee argues that the inventory records are the most accurate and simplistic. The following represents the revised methodology:

i. Calculate the VOC emissions for each month from the "toluene-only" sources using a mass balance approach as prescribed here: toluene purchases for the 12-month period + toluene inventory at the beginning of 12-month period - toluene inventory at the end of 12-month period.
ii. Calculate the VOC emissions for each month from the mixing of specialty chemicals using the inventory records and EPA TANKS4.0 program.
iii. Calculate the VOC emissions for each month using the mass balance approach for any water-based raw materials utilized in the coating line 5 flexographic printer (ES-33-5-FP).

DAQ believes that this proposed approach is reasonable and should assure compliance, and will therefore approve it.

Separately, this existing permit condition includes a 95% value for efficiency of RTO to be used for calculation purposes when coating line 5 and 6 emission sources are processing specialty chemicals. The Permittee requests that the efficiency of RTO be changed from 95 to 90 percent. The company argues that this change will not result in any regulatory implications.

It should be noted here that the coating line 5 emission sources are subject to NSPS Subpart RR, which does not require 95 percent reduction for VOCs. Coating line 6 sources are not subject to NSPS. Both coating line 5 and 6 are subject to MACT Subpart JJJJ requirement. For the MACT compliance, the company has chosen an option to reduce the organic HAP emissions from these lines to 20 percent of the mass of coating solids applied on a

monthly basis and the Permittee has not chosen the option to reduce the organic HAP emissions reduction of 95 percent.

As shown above, changing the RTO efficiency value from 95 to 90 percent will not create any conflict with other applicable requirements for these coating lines. Hence, DAQ will approve this change.

This permit condition will be revised as following:

> The Permittee shall apply a control efficiency of 90 percent for VOC for the RTO (CD-33-56-RTO) if all 3-hour periods of the month during which the average temperature of the RTO is greater or equal to the average temperature of the RTO during the most recent performance test in NSPS Subpart RR. The Permittee shall apply a control efficiency of 0 percent for VOC for the RTO (CD-33-56-RTO) if any 3-hour period of the month during which the average temperature of the RTO is less than the average temperature of the RTO during the most recent performance tests in NSPS Subpart RR.

Finally, the permit limit of 1,160 tons/yr will be revised due to the following reasons:

i. To remove potential emissions of 1 ton for groundwater remediation system (ID No. ES-33-GR).

The potential uncontrolled emissions of groundwater remediation system are approximately 1 ton. VOC emissions are currently controlled via either solvent recovery device or an RTO. The control of VOC emissions is not required by any applicable requirement. See Section 5F below. In addition, the VOC emissions from this source are modeled uncontrolled for the air toxics requirement in the current permit. Hence, DAQ will adjust this permit limit by 1 ton and establish a revised permit limit of 1,159 tons/yr, and thus provide an operational flexibility for the groundwater remediation system by not having to comply with unnecessary monitoring under the PSD avoidance condition.

E. To remove Hickory Plant Coating Line 1, Line 2, and Line 3 emission sources (ID Nos. ES-33-01-01, ES-33-01-02, ES-33-02-01, ES-33-02-02, and ES-33-3-01 and ES-33-3-03).

The Permittee has requested to remove these emission sources and their emissions from the permit, as the sources have been removed from the facility.

DAQ will delist these sources in the revised permit and remove their applicable requirements. It should be noted here that one of the existing applicable requirements for these sources is a multi-source limit for VOC emissions of 1,160 tons on a 12-month basis to avoid triggering PSD. This cap includes VOC emissions from these sources among many others. Please refer to Section 5D above for complete details on resetting this PSD avoidance limit.

F. To repermit Groundwater Remediation System (ID No. ES-33-GR) as an uncontrolled emission source.

VOC emissions from the Groundwater Remediation System (ID No. ES-33-GR) are currently permitted to be controlled by the solvent recovery system (ID No. 33-35-10) or thermal oxidizer (ID No. 33-56-RTO). The potential to emit for VOC for this source is approximately 1 ton. Finally, this source has been modeled as an uncontrolled source in the existing air toxic modeling as included in the current permit.

DAQ believes that the potential emissions from the remediation system are low and the control of VOC is not required by any applicable requirements. Hence, it will be repermitted as an uncontrolled emission source.

The source will continue to be subject to the requirements of 15A NCAC 2D .1100, .1111 and .1806, but it will not be subject to the requirement of 2Q .0317.

<u>2D .1100</u>

The Permittee has demonstrated compliance with AALs of each of the NC air toxics through facility wide modeling analysis in 2005. Any new modeling analysis can only be required after five years from 2005.

2D .1111

EPA has promulgated MACT Subpart GGGGG "National Emission Standards for Hazardous Air Pollutants: Site Remediation" in 68 FR 58171, October 10, 2003. The compliance date for the existing sources is October 9, 2006.

Owners and operators of facilities that are major sources of HAP emissions and where a site remediation is conducted, that meets the definitions and conditions specified in this rule, are required to comply with emission standards and work practices for control of HAP reflecting application of the maximum achievable control technology.

The Groundwater Remediation System (ID No. ES-33-GR) is not subject to this Subpart except the record keeping requirements as below, as per §63.7881(c).

The Permittee shall prepare and maintain at his/her facility written documentation to support his/her determination that the total HAP quantity in his/her facility remediation materials for the year is less than 1 Mg. The documentation shall include a description of his/her methodology and data used for determining the total HAP content of the remediation material. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these records are not maintained.

2D .1806

The facility will continue to comply with the odorous emissions regulation.

2Q .0317

VOC emissions from this source are currently limited under the multi-source limit of 1,160 tons on a 12-month basis to avoid triggering PSD. All emission sources under this avoidance limit are controlled by either solvent recovery or destruction device. After this revision, the emissions from this source will not be capped under this limit. Please refer to Section 5D above for complete details on resetting this PSD avoidance limit.

G. To repermit Pilot Coater No. 1 (ID No. ES-33-0-01) as an uncontrolled emission source.

The Permittee is requesting to move this source to a separate building. In doing so, it will not have an access to the existing solvent recovery device (ID No. CD-33-8-12) due to its distance from the control device and the physical constraint of the highway. Emissions from this coater for 2006 are only 1 ton while the potential emissions are approximately 1.7 tons. None of the applicable requirements mandate use of a control device for compliance. Hence, this request will be approved and necessary changes to the current permit will be made. As such the source is subject to 2D .0515, .0521, .0524, .0958, .1100 and .1111, and 2Q .0317.

2D .0515

The maximum PM emissions will be governed under the following allowable emissions limitation:

$E = 4.10P^{0.67}$

where, E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Negligible PM emissions are expected based on type of water-based coating used. Compliance is expected for this requirement.

2D .0516

The direct fired drying oven of the coater is subject to 2.3 lb SO_2 per million Btu emission limit. It is fired with either natural gas or propane. Due to negligible sulfur contents of these fuels, compliance with this emission standard is expected.

2D .0521

The coater is subject to 20 percent opacity. This coater was not operating during the recent compliance inspection of May 4, 2007. Negligible or no visible emissions are expected from the coater.

2D .0524

This coater has avoided NSPS RR applicability by limiting VOC content of the coatings as applied to less than 45 Mg/yr as per the requirement in §60.442(a). The Permittee has provided documentation of solvent usage for 2005-2006, demonstrating compliance with this requirement.

2D .0958

The coater is subject to work practice standards of this rule and it will continue to be required comply with it.

2D .1100

The Permittee has demonstrated compliance with AALs of each of the NC air toxics through facility wide modeling analysis in 2005. Any new modeling analysis can only be required after five years from 2005.

2D .1111

These source are subject to MACT Subpart JJJJ. Refer to Section 5A above.

2Q .0317

VOC emissions from this source are currently limited under the multi-source limit of 1,160 tons on a 12-month basis to avoid triggering PSD. All emission sources under this avoidance limit are controlled by either solvent recovery or destruction device. Please refer to Section 5 D. above for complete details on resetting this PSD avoidance limit.

H. To repermit Hickory Plant Adhesive Storage Tanks (ID Nos. ES-33-1-01 through ES-33-1-07, ES-33-1-10 through ES-33-1-13, ES-33-1-16, ES-33-2-20, ES-33-2-23, ES-33-2-27 through ES-33-2-33, ES-33-2-25, ES-33-2-19, ES-33-2-34 through ES-33-2-39, ES-33-2-41 and ES-33-2-42) for VOC controlling emissions via No. 2 Triple Bed carbon adsorption system (ID No. 33-6-10) as an option.

DAQ will allow emissions from these tanks to be controlled by the No. 2 Triple Bed carbon adsorption system (ID No. 33-6-10) as an option in lieu of No.1 Triple Bed carbon adsorption system (ID No. 33-35-10) or the regenerative thermal oxidizer (ID No. 33-56-RTO).

This change does not trigger any new applicability review or review of the existing applicable requirements. As such these sources are subject to the requirements of 2D .0958, .1100, .1111 and .1806, and 2Q .0317.

I. To remove NSPS applicability for process oil tank (ID No. ES36-POST-1).

EPA has revised the NSPS Subpart Kb to exempt the process tanks from the applicability to this Subpart Kb. Refer to 68 FR 59328, October 15, 2003. DAQ will remove applicability to the NSPS for this tank.

J. To add three storage tanks for storing solvent-based coatings (ID Nos. ES-33-52, ES-33-53 and ES-33-54).

These tanks (ID Nos. ES-33-52, ES-33-53 and ES-33-54) are having capacities of 1,500 gallons, 12,000 gallons, and 12,000 gallons, respectively, storing solvent-based coatings.

The Permittee has estimated emissions from the tanks using the EPA's TANKS program. The estimated VOC emissions for these tanks are 0.015 ton/yr, 0.78 ton/yr, and 0.78 ton/yr, respectively.

It should be noted here that these tanks might be deemed "insignificant activities" due to their potential emissions less than the 5 tons threshold. But they are subject to the requirements in 40 CFR 63; hence, they need to be permitted with specific requirements.

The tanks will be subject to the requirements in 2D .0958, .1110, and .1111.

2D .0958

These tanks are subject to work practice standards of this rule and it will be required to comply with it.

2D .1100

The Permittee has demonstrated compliance with AALs of each of the NC air toxics through facility wide modeling analysis in 2005. Any new modeling analysis can only be required after five years from 2005. It should be noted here that the currently permitted emissions are overly conservative and the relatively insignificant emissions from these tanks would not violate any of the air toxics' AALs at the present time.

The Permittee has recognized that the new air toxics emissions from these tanks may need to be modeled in future for compliance with this requirement.

2D .1111

These storage tanks are subject to MACT Subpart EEEE. Refer to Section 5A above for complete details on all applicable requirements for these tanks under this MACT.

Finally, it should also be stated here that these tanks are not subject to the requirements of NSPS Subpart Kb due to their storage capacities less than the applicability threshold. The NSPS applies to volatile organic liquid storage vessels having capacities of equal or greater than 75 m^3 (approximately 19,815 gallons) and which are constructed, reconstructed, or modification after July 23, 1984. Refer to § 60.110b(a).

K. To add a parts washer in the maintenance department (ID No. IS-F-PW1).

This parts washer uses naphtha, as a cleaning material, which is non-VOC, non-HAP/TAP solvent. The Permittee has estimated emissions to be approximately 2.2 tons/yr based on annual usage of 660 gallons, density of 6.5 lb/gallons, and a specific gravity of 0.78. Assuming these emissions are in the form of PM, it does meet the 5 tons threshold. Thus, this parts washer will be listed as insignificant activity under 2Q .0503(8).

L. To list permitted boilers (ID Nos. ES-33-BLR-B3 and ES-33-BLR-B4) as insignificant activities.

The potential NOx emissions from boiler 33-BLR-B3 are approximately 3 tons/yr (natural gas) and 4.76 tons (propane). So, it does meet the criteria of 2Q .0503(8).

The potential NOx emissions from boiler 33-BLR-B4 are approximately 3.6 tons/yr (natural gas) and 5.6 tons (propane). So, it does not meet the criteria of 2Q .0503(8).

In brief, only boiler 33-BLR-B3 will be classified as "insignificant activity" under 2Q .050(8).

M. To permit a temporary boiler (ID No. 33-BLR-Temp).

The Permittee has requested to add a new natural gas/propane fired boiler. The heat input capacity for the boiler is 26.4 million Btu/hr.

It should be stated here that this boiler would only be used if anyone of the permitted boilers were not available for service. That is the temporary boiler (ID No. 33-BLR-Temp) will be used (i) in lieu of ES-33-BLR-B2 (26.41 million Btu) OR (ii) in lieu of ES-33-BLR-B4 (8.37 million Btu/hr) OR (iii) in lieu of ES-33-BLR-B5 (25.1 million Btu/hr) OR (iv) in lieu of ES-33-BLR-B1 (10.475 million Btu/hr) OR (v) in lieu of ES-33-BLR-B3 (7.1 million Btu/hr) [insignificant activity].

The following is an emission summary for the boiler, based on maximum 8,760 hrs of operation and applicable AP-42 emission factors.

The boiler is subject to the requirements in 2D .0503, .0516, .0521, and .0524.

Pollutant	**Potential Emissions**	
	Natural Gas tons/yr	Propane tons/yr
PM	0.85	0.76
PM_{10}	0.85	0.76
$PM_{2.5}$	0.85	0.76
SO_2	0.07	0.01
NOx	11.23	24.01
CO	9.43	4.04
VOC	0.62	0.63
Single HAP	0.204	Not Available
Total HAP	0.21	Not Available

2D .0503

Emissions of particulate matter from the combustion of natural gas or propane that is discharged from the boiler into the atmosphere shall not exceed 0.33 pounds per million Btu heat input. [15A NCAC 2D .0503(c)]

Allowable emissions of particulate matter (PM) from firing of natural gas or propane in this boiler shall be calculated as follows:

$E = 1.090 \times Q^{-0.2594}$ Where: E = allowable PM emission rate in lbs/million Btu

Q = maximum heat input rate in million Btu per hour at the Site

= (0.4 + 26.41 + 7.1 + 8.37 + 25.1 + 10.475 + 26.41) million Btu/hr

= 104.3 million Btu per hour site wide

Using Q = 104.3 million Btu per hour, E can be estimated as approximately 0.33 pounds per million Btu heat input.

The maximum heat input rates of all existing (permitted) boilers and the new, temporary boiler have been considered for estimating the PM emission rate for the temporary boiler, as per 2D .0503(e).

Compliance with the PM emission limit of 0.33 lb/million Btu is expected due to use of cleaner fuels such as natural gas and propane.

2D .0516

This boiler is subject to 2.3 lb/million Btu SO_2 emission limit. Compliance is expected due to negligible sulfur content of natural gas and propane.

2D .0521

The boiler is subject to 20 percent opacity limit. Compliance is expected due to use of cleaner fuels however, it will be verified after start-up through compliance inspection.

N. To revise source descriptors for all permitted storage tanks to include wordings "storage tank with a maximum capacity up to".

DAQ will revise source descriptors of all permitted tanks as follows:

Eleven (11) solvent-based adhesive mixers equipped with water cooled jacket, each with a maximum capacity of up to 1,500 gallons (ID Nos. ES-33-1-01 through ES-33-1-07 and ES-33-1-10 through ES-33-1-13)

Solvent-based mixer equipped with water cooled jacket, having a maximum capacity of up to 80 gallons (ID No. ES-33-1-16)

Two adhesive storage tanks, each with a maximum capacity of up to 500 gallons (ID Nos. ES-33-2-20 and ES-33-2-23)

Seven (7) adhesive storage tanks, each with a maximum capacity of up to 1,500 gallons (ID Nos. ES-33-2-27 through ES-33-2-33)

Solvent storage tank, having a maximum capacity of up to 500 gallons (ID No. ES-33-2-25)

Seven (7) adhesive storage tanks, each with a maximum capacity of up to 3,750 gallons (ID Nos. ES-33-2-19 and ES-33-2-34 through ES-33-2-39)

Two adhesive storage tanks, each with a maximum capacity of up to 2,000 gallons (ID Nos. ES-33-2-41 and ES-33-2-42)

The Permittee contends that if the source descriptors are revised as above, it would negate the need to revise the permit in future solely due to size if the need arises to replace a tank with a smaller volume. DAQ agrees with it and will revise the descriptors as above.

6. NSPS, NESHAPS, Attainment Status, PSD, 112(r), and CAM

NSPS

The existing coating lines 5, 8, 9, and Highland Plant coating line are subject to the NSPS Subpart RR requirements. The current permit includes all applicable requirements of this NSPS for these coating lines. This modification application does not change the NSPS applicability.

NESHAPS

All existing coating lines 4, 5, 6, 7, 8 and 9, and Highland Plant coating line are subject to the MACT Subpart JJJJ requirements. The "affiliated operations" are subject to MACT Subpart EEEE. Refer to Section 5A above for a complete details on compliance with these MACT requirements.

Attainment Status and NSR

This facility is located in Catawba County and is in attainment for all criteria pollutants, except for 8-hr ozone standard and PM2.5 standard.

Effective, June 15, 2004, the county is deemed in non-attainment for 8-hr ozone standard but it has elected to participate in the voluntary Early Action Compact (EAC) program for this matter. For EAC areas, PSD rule applies for major sources and major modifications, and the effective date for designation of non-attainment for 8-hr ozone standard has been deferred until December 2007.

Shurtape's Hickory facility has been deemed a major source for VOC, exceeding the 250 tons/yr threshold under PSD rule. The addition of three new storage tanks and one temporary boiler, and removal of three coating lines will have a net decrease in VOC emissions. In addition, the facility's VOC emissions are currently capped under two different avoidance conditions of < 1,160 tons/yr and < 40 tons/yr.

It should be clarified here that the total VOC emissions from four new sources; one boiler, and three storage tanks, are only approximately 2 tons. These increases are less than the 40 tons significance threshold, and therefore they are considered to be "minor modification" under the PSD and will be permitted as "stand-alone" emission units. See Section 5J and 5M.

Also, as stated above, the Catawba County is considered in non-attainment for PM2.5, effective April 5, 2005. The major source threshold for PM2.5 is 100 tons/yr. As per the information provided by the company for the Hickory facility, the facility wide PTE for TSP is approximately 11 tons/yr. Assuming that all TSP is PM2.5 (which is not a realistic assumption for this facility), the facility can be considered a minor source for PM2.5. Hence, the modification itself has to be a major for applicability to major modification provision of non-attainment new source review for PM2.5. The addition of three new storage tanks and one temporary boiler, and removal of three coating lines will have a net decrease in PM2.5 emissions.

Finally, for PSD increment tracking purposes, NOx emissions have increased by 4 lbs/hr due to this modification. Please see the attached for net emissions change calculations.

112(r)

This facility is not subject to Section 112(r) of the Clean Air Act requirements. The facility stores propane - a regulated pollutant, above the 10,000 lbs regulatory threshold. But propane use as fuel is excluded from the 112(r) program requirements.

CAM

The SIP regulation in 2D .0614 implements the requirements of 40 CFR 64 "Compliance Assurance Monitoring". The requirements of CAM are applicable to any pollutant-specific emission unit (PSEU), if the following three conditions are satisfied:

(i) pollutant specific emission unit (eg. boiler, spray booth etc.) shall be subject to an emission limitation or a standard other than the exempt limitations or standards (e.g. post-1990 federal standards such as MACT, NSPS etc.),

(ii) the pollutant specific emission unit uses an active control device to achieve compliance with the applicable requirement, and

(iii) potential precontrol device emission rate for the pollutant specific emission unit for any regulated pollutant shall be equal or greater than major source threshold.

There are several exemptions included in the Part 64. E.g., PSEU subject to any standard promulgated after 11/15/90 under Section 111 (i.e., NSPS in Part 60) or Section 112 (e.g., MACT in Part 63) of the Clean Air Act (CAA), PSEU

subject to acid rain program requirements, PSEU subject to any emission trading program approved by EPA, PSEU subject to any continuous compliance determination method (CCDM) as specified in the Title V permit, etc.

Also as per Section 64.5, the Permittee must analyze whether any emission unit undergoing a "significant permit amendments", be deemed as a large PSEU and therefore a CAM plan needs to be submitted. Large PSEUs are those emission units, which have after control potential emission rates equal to or greater than either 100 tons (for criteria pollutants) or 10/25 tons (for HAPs).

This permit application covers emission sources undergoing 2nd step of 2Q .0501(c)(2) provision, which is essentially a "significant permit amendments" under Part 70. Hence, applicability of those PSEUs approved in the 1st step of 2Q .0501(c)(2) (air permit 02218T24) must be analyzed.

In addition, this permit application includes three new tanks and one temporary boiler. But these sources do not have active control devices. So, CAM is not applicable.

The following Table provides a summary of PSEUs:

PSEU	Pollutant	Applicable Requirement	Active Control Device	After Control Emission Rate	Major Source Threshold	Subject to CAM?
Coating line 5	VOC	15A NCAC 2D .0524 (NSPS Subpart RR) 15A NCAC 2D .0958 15A NCAC 2Q .0317	carbon adsorber (33-35-10) or RTO (33-56-RTO)	529	100	See discussion below
Coating Line 6	VOC	15A NCAC 2D .0958 15A NCAC 2Q .0317	carbon adsorber (33-6-10) or RTO (33-56-RTO)	604.5	100	Yes
Bulk Resin System	PM	15A NCAC 2D .0515	bag filter (33-RS-BH1)	0.11	100	No

It should be discussed here that the NSPS Subpart RR requires the Permittee to perform compliance test on coating line 5 every month after the completion of initial test for determination of VOC emission reduction or percentage reduction requirements. In particular, §60.443(f) specifies that "a separate compliance test is completed at the end of each calendar month after the initial compliance test." This requirement has been part of the current Title V permit. DAQ considers this NSPS requirement as CCDM as per 64.2(b)(1)(vi). Hence, coating line 5 is exempt from CAM, even though the after control emissions exceed the major source threshold.

Coating line 6 is subject to CAM as its after control emissions exceed the major source threshold and it does not meet any exemptions provided in the Section 64.2(b)(1).

Finally, CAM plan for bulk resin system is not required because the after control emission rate does not exceed the major source threshold.

CAM Plan for Coating Line 6

The CAM plan for coating line 6 has been based on monthly liquid-liquid material balance using the carbon adsorption system and the measurement of combustion zone temperature for RTO. The monitoring and associated record keeping

and reporting under MACT will be sufficient to assure compliance with the CAM requirement. In addition, the Permittee will be required to perform the following inspection and maintenance on carbon adsorber (33-6-10) and RTO (33-56-RTO).

Carbon Adsorber

If any monthly liquid-liquid material balance indicates that actual organic HAP[1] emitted is within 10 percent of the emission standard in MACT Subpart JJJJ (i.e., actual organic HAP emitted is between 18 and 20 percent of the mass of coating solids applied), the Permittee shall initiate an inspection as follows of the solvent recovery device (33-6-10) within 24 hours of the calculation of monthly liquid-liquid material balance indicating actual organic HAP emitted is within 10 percent of the emission standard in MACT:

i. The Permittee shall inspect the collection ductwork and the solvent recovery device (33-6-10) for structural integrity and leaks.
ii. The solvent recovery device shall be equipped with a device to ensure that the fan on the solvent-laden air (SLA) inlet duct is operating properly, which ensures adequate flow across the carbon bed.
iii. The device to measure the pressure drop across each bed of solvent recovery device shall be installed in an accessible location and shall be maintained by the Permittee such that it is in proper working order at all times. The pressure drop across each bed during normal source operation shall be maintained in the range between 5-40 inches of water.
iv. A solvent recovery device log book shall be kept on site and made available to Division of Air Quality personnel upon request. Any variance from manufacturer's recommendations or best practices identified by the Permittee shall be investigated with corrections made and date of actions recorded in the adsorber logbook.

If the inspection of the solvent recovery device (33-6-10) is not made within 24 hours of calculation of monthly liquid-liquid material balance indicating actual organic HAP emitted is within 10 percent of the emission standard in MACT the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0614.

RTO

If any 3-hour average combustion temperature is less than 10^{o} F above the combustion temperature limit as established in §63.3360(e)(3)(i), the Permittee shall initiate an inspection as follows of the thermal oxidizer (33-56-RTO) within 24 hours of calculation of any 3-hour average combustion temperature falling below 10^{o} F above the combustion temperature limit as established in §63.3360(e)(3)(i):

i. The Permittee shall inspect the collection ductwork and the thermal oxidizer (33-56-RTO) for structural integrity and leaks.

If the inspection of the affected thermal oxidizer (33-56-RTO) is not made within 24 hours of calculation of any 3-hour average combustion temperature falling within 10^{0} F above the combustion temperature limit as established in §63.3360(e)(3)(i), the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0614.

7. Facility Wide Air Toxics

This current permit includes permitted emission limits for all NC air toxics. This modeling analysis was reviewed and approved through the issuance of air permit 02218T24.

8. Facility Emissions Review

The following table represents a summary for facility wide emissions. Actual emissions are from the 2005 emission inventory as reported to DAQ while potential emissions data are from the application.

[1] Although CAM plan is required for VOC emissions from coating line No. 6 emission sources (ES-33-6-01 and ES-33-6-02), organic HAP has been deemed as a surrogate pollutant for CAM requirement.

Pollutant	Actual Emissions (tons per year)	Potential Emissions (tons per year)
Particulate (TSP)	10.87	> 10.87
Particulate (PM-10)	10.87	> 10.87
Particulate (PM-2.5)	1.00	1.60
Carbon Monoxide	10.63	17.46
Nitrogen Oxides	8.08	11.55
Sulfur Dioxide	0.08	0.13
Volatile Organic Compounds	660.72	1,198
Single largest HAP (Toluene)	616.6	>616.6
Total HAP	> 616.6	1,98

9. Stipulation Review

The following table summarizes changes made to the previous permit (No. 02218T24):

Old Page No.	New Page No.	Condition No.	Changes
-	-	Insignificant Activity List	Add the following sources to the insignificant activity list: Maintenance Department Parts Washer (ID No. IS-F-PW1) and R&D Spray Booth for Small Scale Testing (ID No. IS-33-RDSB). Add the following permitted source to the insignificant activity list: Boiler No. 3 - Natural gas/propane fired boiler (7.1 million Btu/hr maximum heat input) (ID No. ES-33-BLR-B3) Remove the following sources from the insignificant activity list and include in the permit with specific requirements: Two resin storage tanks - capacity 3700 gallons each, ES-33-2-43 and ES-33-2-44, Two toluene storage tanks - capacity 10,000 gallons each, ES-33-2-45 and ES-33-2-46, One mixing tank, 570 gallons capacity (ID No.33-MT-21), Plant 33 Interior Tanks (ES-33IT) - Forty-two (42) interior water-based holding, storage, and mixing tanks-(140,020 gallons total capacity) Plant 36 Interior Tanks (ES-36-IT) - Twenty-six (26) water-based holding, mixing and flush tanks (12,000 gallon total capacity), Three water-based storage tanks - 12,431 gallons capacity each (ES-36-WBST-1 – ES-36-WBST3

Old Page No.	New Page No.	Condition No.	Changes
		Section 1 Table	Include use of solvent recovery system (33-6-10) for storage tanks (ES-33-1-01 through ES-33-1-07, ES-33-1-10 through ES-33-1-13, ES-33-1-16, ES-33-2-20, ES-33-2-23, ES-33-2-27 through ES-33-2-33, ES-33-2-25, ES-33-2-19, ES-33-2-34 through ES-33-2-39, ES-33-2-41, and ES-33-2-42). Permit groundwater remediation system (ES-33-GR) as an uncontrolled source. Remove control of solvent recovery system (33-35-10) and RTO (33-6-10) for this source. Include emission sources; Three Toluene Transfer Racks (33-TST-TR1, 33-TST-TR2, and 33-TST-TR3), Two Solvent Based Resin Transfer Racks (33-SBPRT-TR1 and 33-SBPRT-TR2), and One Petroleum Resin Transfer Rack (33-PRT-TR1). Permit pilot coater No. 1 (ES-33-0-01) as an uncontrolled source. Add new boiler (ES-33-BLR-Temp).
10	11	Section 2.1 A.1.c.	Include noncompliance statement.
11	11	Section 2.1 A.2.c.	Update the visible emissions monitoring condition using the current Title V shell.
11	12	Section 2.1 B.	Revise the source description as follows: Hickory Plant Adhesive Storage Tanks (ES-33-1-01 through ES-33-1-07, ES-33-1-10 through ES-33-1-13, ES-33-1-16, ES-33-2-20, ES-33-2-23, ES-33-2-27 through ES-33-2-33, ES-33-2-25, ES-33-2-19, ES-33-2-34 through ES-33-2-39, ES-33-2-41, and ES-33-2-42), and associated Carbon Adsorption Systems (CD-33-35-10 and CD-33-6-10) and Regenerative Thermal Oxidizer (CD-33-56-RTO) Ground Water Remediation System (ES-33-GR), Hickory Plant Adhesive Storage Tanks (ES-33-2-45, ES-33-2-46, ES-33-ST-1, ES-33-ST-2, and 33-MT-21), Three Toluene Transfer Racks (33-TST-TR1, 33-TST-TR2, and 33-TST-TR3), Two Solvent-Based Resin Transfer Racks (33-SBPRT-TR1 and 33-SBPRT-TR2) and One Petroleum Resin Transfer Rack (33-PRT-TR1)
11	12	Section 2.1 B. Table	Revise PSD avoidance limit to 1,159 tons instead of 1,160. Include MACT Subparts GGGGG and EEEE applicability.
-	12	Section 2.1 B.1.	Include applicable requirements under MACT Subpart GGGGG.

Old Page No.	New Page No.	Condition No.	Changes
12	13	Section 2.1 C.	Revise the source description as follows: Hickory Plant Raw Material Storage (ES-33-2-47, ES-33-2-48, ES-52, ES-33-53, ES-33-54, ES-33-2-43, ES-33-2-44, and ES-33IT1 through ES-33IT42)
12	13	Section 2.1 C. Table	Revise PSD avoidance limit to 1,159 tons instead of 1,160. Include MACT Subpart EEEE applicability.
12	13	Section 2.1 D.	Revise the source description as follows: Hickory Plant Coating Lines (ES-33-04-01, ES-33-04-02, ES-33-5-01, ES-33-5-02, ES-33-5-03, ES-33-5-FP, ES-33-6-01, ES-33-6-02, ES-33-6-03, ES-33-6-04, ES-33-07-01, ES-33-07-02, ES-33-8-02, ES-33-8-04, ES-33-8-05, ES-33-09-01, ES-33-09-02, ES-33-15-01, ES-33-PC-2) and associated Carbon Adsorption Systems (CD-33-35-10, CD-33-6-10, CD-33-8-10, and CD-33-8-12) and Regenerative Thermal Oxidizer (CD-33-56-RTO) Hickory Plant Pilot Coater No. 1 (ES-33-0-01)
12	13	Section 2.1 D. Table	Revise PSD avoidance limit to 1,159 tons instead of 1,160. Include MACT Subpart JJJJ and CAM applicability.
14	16	Section 2.1 D.3. b.	Remove emission sources (ES-33-01-01, ES-33-01-02, ES-33-02-01, ES-33-02-02, ES-33-3-01, ES-33-3-02, and ES-33-3-03) from applicability of 2D .0521 as these sources are removed with this permit revision.
15	16	Section 2.1 D.4.c.	Include a noncompliance statement.
5	16	Section 2.1 D.4.d.	Update the reporting requirement using the current Title V shell.
21	24	Section 2.1 D.7.	Renumber it to Section 2.1 D.8.
21	24	Section 2.1 D.7.a.	Renumber it to Section 2.1 D.8. a. Replace "press" to "coating line 5 flexographic printer (33-5-FP).
-	22	Section 2.1 D.7.	Add new applicable requirement for CAM for coating line 6.
22	25	Section 2.1 F.	Revise the source description as follows: Boilers (ES-33-BLR-B2, ES-33-BLR-B4, ES-33-BLR-B5, ES-33-BLR-TEMP, and ES-36-BLR-B1)
22	25	Section 2.1 F. Table	Add applicability for 2D .0503, .0516, .0521, and .0524 for new boiler, ES-33-BLR-Temp. Remove boiler ES-33-BLR-B3 as it has been listed as insignificant activity with this permit revision.
24	26	Section 2.1 F.4.	Update NSPS condition using the current Dc requirements for existing affected and new affected boiler.
24	28	Section 2.1 G.	Revise the source description as follows: Highland Plant Tanks (ES-36-POST-1, ES-36-MRT-1, ES-36-IT1 through ES-36-IT26, ES-36-WBST1, ES-36-WBST2, and ES-36-WBST3)
25	28	Section 2.1 G. Table	Include applicability for MACT Subpart EEEE.
26	29	Section 2.1 H. Table	Include applicability of MACT Subpart JJJJ.

Old Page No.	New Page No.	Condition No.	Changes
31	34	Section 2.1 H.5.a.	Revise "press" to "coating/printing station (ES-36-CL3)".
33	36	Section 2.1 I.2.c.	Include the latest visible emissions requirement from the Title V shell.
33	37	Section 2.1 J.	Revise the source description as follows: Bulk Resin System including Mixing Tank (33-RS) and associated Carbon Adsorption Systems (CD-33-35-10 and CD-33-6-10) and Cartridge Filter (CD-33-RS-BH1) Eight Mixing Tanks (33-SPC-MT1-8)
33	37	Section 2.1 J. Table	Revise PSD avoidance limit to 1,159 tons instead of 1,160. Include applicability for MACT Subpart EEEE.
40	44	Section 2.2 B.1.c. and d.	Update monitoring and record keeping requirements.
41	45	Section 2.2 C.	Revise the source description as follows: Hickory Plant Adhesive Storage Tanks (ES-33-1-01 through ES-33-1-07, ES-33-1-10 through ES-33-1-13, ES-33-1-16, ES-33-2-20, ES-33-2-23, ES-33-2-27 through ES-33-2-33, ES-33-2-25, ES-33-2-19, ES-33-2-34 through ES-33-2-39, ES-33-2-41, and ES-33-2-42), Hickory Plant Coating Lines (ES-33-5-01, ES-33-5-02, ES-33-5-03, ES-33-5-FP, ES-33-6-01, ES-33-6-02, ES-33-6-03, ES-33-6-04, ES-33-8-02, ES-33-8-04, and ES-33-8-05), Bulk Resin System including Mixing Tank (ES-33-RS), Eight Mixing Tanks (ES-33-SPC-MT1-8), and associated Carbon Adsorption Systems (CD-33-35-10, CD-33-6-10, CD-33-8-10, and CD-33-8-12) and Regenerative Thermal Oxidizer (CD-33-56-RTO) Hickory Plant Adhesive Storage Tanks (ES-33-2-45 and ES-33-2-46) Hickory Plant Raw Material Storage (ES-33-2-47, ES-33-2-48, ES-33-2-43, ES-33-2-44, and ES-33IT1 through ES-33IT42)
42	46	Section 2.2 C.1.c. and d.	Revise emission limit to 1,159 tons. Update monitoring and record keeping requirements.

Old Page No.	New Page No.	Condition No.	Changes
42	47	Section 2.2 D.	Revise the source description as follows: Hickory Plant Adhesive Storage Tanks (ES-33-1-01 through ES-33-1-07, ES-33-1-10 through ES-33-1-13, ES-33-1-16, ES-33-2-20, ES-33-2-23, ES-33-2-27 through ES-33-2-33, ES-33-2-25, ES-33-2-19, ES-33-2-34 through ES-33-2-39, ES-33-2-41, and ES-33-2-42), Hickory Plant Coating Lines (ES-33-5-01, ES-33-5-02, ES-33-5-03, ES-33-5-FP, ES-33-6-01, ES-33-6-02, ES-33-6-03, ES-33-6-04, ES-33-8-02, ES-33-8-04, and ES-33-8-05), Bulk Resin System including Mixing Tank (ES-33-RS), Eight Mixing Tanks (ES-33-SPC-MT1-8), and associated Carbon Adsorption Systems (CD-33-35-10, CD-33-6-10, CD-33-8-10, and CD-33-8-12) and Regenerative Thermal Oxidizer (CD-33-56-RTO) Ground Water Remediation System (ES-33-GR), Hickory Plant Adhesive Storage Tanks (ES-33-2-45, ES-33-2-46, ES-33-ST-1, ES-33-ST-2, and 33-MT-21), Three Toluene Transfer Racks (33-TST-TR1, 33-TST-TR2, and 33-TST-TR3), Two Solvent-Based Resin Transfer Racks (33-SBPRT-TR1 and 33-SBPRT-TR2), One Petroleum Resin Transfer Rack (33-PRT-TR1 and) Hickory Plant Raw Material Storage (ES-33-2-47, ES-33-2-48, ES-33-52, ES-33-53, ES-33-54, ES-33-2-43, ES-33-2-44) Hickory Plant Parts Washers (ES-33-2-49 through ES-33-2-51) Highland Plant Tanks (ES-36-POST-1, ES-36-MRT-1, ES-36-WBST1, ES-36-WBST2, and ES-36-WBST3), Highland Plant Coating Line (ES-36-CL-1, ES-36-CL-2, ES-36-CL-3, ES-36-DO-1, ES-36-DO-2, ES-36-DO-3), and associated Regenerative Thermal Oxidizer (CD-36-RTO-1)
-	48	Section 2.2 E.	Include new applicable requirement for MACT Subpart JJJJ.
-	57	Section 2.2 F.	Include new applicable requirement for MACT Subpart EEEE.
44	61	Section 3	Replace the General Conditions as per the latest Title V shell.

10. Public Notice / EPA and Affected States Review

Pursuant to 2Q .0521, a notice of the proposed Title V Permit will be placed in the newspapers of general circulation in the area where the facility is located. The notice will provide for a 30-day comment period with an opportunity for a public hearing. Copies of the public notice will also be sent to persons on the Title V mailing list.

Based upon the EPA's current policy, the proposed permit for this facility will be sent to EPA for their 45-day review, simultaneously with noticing it in the newspaper for 30-day public review. The final permit will also be provided to EPA after issuance.

11. Conclusions, Comments, and Recommendations

Professional engineer's seal was not required for this application as it does not involve approval of a new control device or a modification to the existing control equipment.

The company has provided a copy of letter dated 7/30/07, which includes a request made to the City of Hickory Planning & Development for the determination of local zoning consistency for new storage tanks and a temporary boiler.

The draft permit was e-mailed to Bruce Ingle of MRO on 8/3/07 for review and comment. Bruce had indicated to Rahul on 8/14/07 that he was not going to review this permit at this time.

The draft permit was also e-mailed to company on 8/3/07 for review and comment. The company provided comments on this draft on 8/14/07 via e-mail. The company comments and the DAQ response are as follows:

Company Comment 1:

"Page 5: Description for ES-33-52. This description should note that this tank is mixing/storage tank."

DAQ Response:

Agreed. The descriptor for this source will be amended.

Company Comment 2:

"Page 5: Description for ES-33IT-1 through 42. Please note that MACT is not applicable to these water-based storage/mixing tanks as HAP is less than 5%. In previous discussions with you it was noted that these tanks would be removed from the insignificant source list as their emissions are subject to PSD avoidance [permit condition 2.2(C)] and NC TAPS [permit Condition 2.2(A)(1)]."

DAQ Response:

Agreed. MACT applicability for these tanks will be removed.

Company Comment 3:

"Page 9: Description for ES-36-IT1 through 26. Please note that MACT is not applicable to these water-based storage/mixing tanks as HAP is less than 5%. In previous discussions with you it was noted that these tanks would be removed from the insignificant source list as their emissions are subject to PSD avoidance [permit condition 2.2(B)]and NC TAPS [permit Condition 2.2(A)(1)]."

DAQ Response:

Agreed. MACT applicability for these tanks will be removed.

Company Comment 4:

"Page 13: Permit Condition 2.1 (C) - Please note that ES-33IT1 through ES-33IT42 are not subject to 15A NCAC 2D .0958 as these are water based storage and/or mixing tanks. In addition, these tanks are not subject to 40 CFR 63 Subpart EEEE."

DAQ Response:

Agreed. Applicability for 2D .0958 and MACT for these tanks will be removed.

Company Comment 5:

"Page 13: Permit Condition 2.1(E) is mislabeled. It appears that this condition should be labeled as 2.1(D) as 2.1(E) is on page 24 of the permit."

DAQ Response:

Agreed. The labeling for this permit provision will be corrected.

Company Comment 6:

"Page 23: Permit Condition 2.1("D")(7)(d)(iii) – CAM Monitoring & Record Keeping Requirements. The manufacturer has been contacted and confirms that the pressure drop range listed is appropriate for the carbon adsorption system."

DAQ Response:

No response needed. This is just a confirmation of the permit data.

Company Comment 7:

"Page 24: Permit Condition 2.1("D")(8)(a). The condition does not appear to identify the difference between the Flexographic printer and the coating line. The condition would be clarified if written as follows:

The sum of the total mass of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials applied by the by the coating line no. 5 flexographic printer (ES-33-5-FP) in each month shall not exceed five weight-percent of the total mass of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials applied on coating line no. 5(ES-33-5-01, ES-33-5-02, ES-33-5-03 and ES-33-5-FP) in that month, including all inboard and outboard stations.

Subpart KK is applicable to all coating application stations located between an unwind and a rewind. Thus, in this case the flexographic print station (ES-33-5-FP) is one of two coating application stations on Coating Line No. 5. Therefore, it is appropriate to utilize the language proposed above that is inclusive of all coating application stations located between the web unwind and web rewind of Coating Line No. 5."

DAQ Response:

Agreed. The drafted language does not correctly capture the NESHAP KK requirement and hence, it will be revised as above.

Company Comment 8:

"Page 28: Permit Condition 2.1(G). Please note that ES-36-IT1 through ES-36-IT26 are not subject to 15A NCAC 2D .0958 as these are water based storage and/or mixing tanks. In addition, these tanks are not subject to 40 CFR 63 Subpart EEEE."

DAQ Response:
Agreed. Applicability for 2D .0958 and MACT for these tanks will be removed.

Company Comment 9:

"Page 34: Permit Condition 2.1(H)(5)(a). The condition does not appear to identify the difference between the Flexographic printer and the coating line. The condition would be clarified if written as follows:

The sum of the total mass of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials applied by the by the coating / printing station (ES-36-CL3) using wide-web flexographic print stations in each month shall not exceed five weight-percent of the total mass of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials applied on the Highland Plant Coating Line (ES-36-CL1, ES-36-CL2, ES-36-CL3, ES-36-DO-1, ES-36-DO-2, ES-36-DO-3, ES-36-CL-7, ES-36-CL-8 and ES-36-CL-10) in that month, including all inboard and outboard stations.

Subpart KK is applicable to all coating application stations located between an unwind and a rewind. Thus, in this case the flexographic print station (ES-36-CL-3) is one of three coating application stations on the Highland Plant Coating Line. Therefore, it is appropriate to utilize the language proposed above that is inclusive of all coating application stations located between the web unwind and web rewind of the Highland Plant Coating Line."

DAQ Response:

Agreed. The drafted language does not correctly capture the NESHAP KK requirement and hence, it will be revised as above.

Company Comment 10:

"Page 47: Permit Condition 2.2(D). Please note that ES-33-IT1 through ES-33-IT42 and ES-36-IT1 through ES-36-IT26 are not subject to 15A NCAC 2D .0958 as these are tanks and mixers are for water-based materials. "

DAQ Response:

Agreed. Applicability for 2D .0958 and MACT for these tanks will be removed.

Company Comment 11:

"Page 50: Permit Condition 2.2(E)(1)(f) – Performance Tests for RTOs. Please note that Shurtape has elected to demonstrate compliance at this time without taking credit for any destruction of VHAP in the RTOs (33-56-RTO and 36-RTO-1). As such, the condition as written will place Shurtape immediately in non-compliance with the permit. Shurtape would request that the condition be re-written to include language that provides an exclusion from testing until such time as Shurtape elects to claim destruction efficiency in an RTO for compliance demonstration purposes with MACT Subpart JJJJ. The following language is offered for your consideration.

The Permittee shall conduct a performance test to establish the destruction or removal efficiency of the thermal oxidizers (33-56-RTO and 36-RTO-1) according to the methods and procedures in §63.3360(e). Details of the emissions testing and requirements can be found in Section 3 - General Condition JJ. Testing shall be completed and the results submitted within 180 days from December 5, 2005, unless an alternate date is approved by the DAQ. The Permittee may elect to defer performance testing to establish destruction efficiency of the thermal oxidizers (33-5-RTO and 36-RTO-1) if the permittee does not elect to utilize the RTO destruction efficiency in the monthly compliance determination and demonstrates compliance by assuming VHAP emissions are uncontrolled when sources associated with either of the aforementioned thermal oxidizers equipment are exhausted to either of the thermal oxidizers. Should the Permittee elect to claim credit for VHAP destroyed by either thermal oxidizer, the Permittee must first conduct performance tests to establish destruction efficiency in accordance with the methods and procedures in §63.3360(e). If the Permittee does not establish the destruction or removal efficiency of the RTO (33-

56-RTO and 36-RTO-1) prior to claiming a destruction efficiency in monthly compliance demonstrations, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 [§63.3360(e)].

This proposed language was discussed with Bruce Ingle of the Mooresville Regional office on this date. The facility is currently well under the established permit limitation without taking any credit for the destruction of HAP by the thermal oxidizers."

DAQ Response:

Agreed. The company proposed language does clarify the requirement and it will be included in the permit.

Company Comment 12:

"Page 57: Permit Condition 2.2(F). In determining applicability of MACT Subpart EEEE, DAQ requested that ID numbers be assigned to each transfer rack that was potentially subject to Subpart EEEE. In making these assignments Shurtape has discovered an error in the assignment of 33-PRT-TR2. In the initial notice of compliance status, Shurtape noted two petroleum resin transfer racks would be applicable. However, in reviewing the equipment layout, only one of those transfer racks is subject to Subpart EEEE, 33-PRT-TR1. Thus, 33-PRT-TR2 should be deleted from this description as well as the equipment description on page 5 of the permit.

The permit application that was submitted included two 12,000-gallon storage tanks (ES-33-53 & 54). Both of these tanks will have associated fill ports when constructed. Under the definitions of transfer racks in Subpart EEEE, these fill ports should be listed on the permit as well. Therefore, Shurtape is requesting that a description be added on page five to include two additional transfer racks associated with the aforementioned tanks. The ID numbers for these tanks should be 33-SBPRT-TR3 and 33-SBPRT-TR4. These ID numbers should also be included in Permit Condition 2.2(F) on page 57 of the draft permit."

DAQ Response:

Source 33-PRT-TR2 will be removed from the permit. Two fill ports 33-SBPRT-TR3 and 33-SBPRT-TR4 will be added to the permit.

Finally, RCO recommends issuing the revised permit.